

CCCTGTCA GTCTTAAGATTCTAGAAGTCGCTGT CCTATACGGAAACCCAAAA
CTCTCACTGTTAATGAAATACCAATTGTCGGGGCGAAGATGTAGCTCAGTGGTAAAATACT -121

TGCCAGCACACACAAGAATTAGACTTCAACCGTCACCAACTGCCCTGTGAGGACGGTCG
GTCACTGAAAGAGAATATTGTC TGCAATACTCTAATGACATCTGTCTGTGTTCATCTGAA -1

SP

1 MetPheHisLeuLysHisSerSerLeuThrValGlyProPheIleSerValMetIleLeu
ATGTTCCATTAAAACACAGCAGCCTTACTGTTGGACCATTATCTCAGTAATGATTCTG

LeuArgPheLeuCysThrGlyArgAsnAsnSerLysGlyArgSerLeuIleGlyArgLeu
CTCCGCTTTCTTGACAGGACGCAACAAACAGTAAAGGAAGTCTTATTGGCAGATTA 120

41 GluThrGlnProProIleThrGlyLysGlyValProValGluProGlyPheSerIleAsp
GAAACCCAGCCTCCAATCACTGGGAAAGGGGTTCCGGTAGAACCGAGGCTTTCCATCGAT

GluPheSerAlaSerIleLeuThrGlyLysLeuThrThrValPheLeuProValValTyr
GAGTTCTCTGCGTCCATCCTCACCGGGAAAGCTGACCACGGTCTTCTCCGGTGTCTAC 240

81 IleIleValPheValIleGlyLeuProSerAsnGlyMetAlaLeuTrpIlePheLeuPhe
ATTATTGTGTTGTGATTGGTTGCCAGTAATGGCATGGCCCTCTGGATCTTCCTTTTC -

ArgThrLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeuAlaAspLeu
CGAACGAAGAAGAACACCCCGCCGTGATTACATGGCCAACCTGGCCTTGGCCGACCTC 360

121 LeuSerValIleTrpPheProLeuLysIleSerTyrHisLeuHisGlyAsnAsnTrpVal
CTCTCTGTCATCTGGTCCCCCTGAAGATCTCCTACACCACATGGCAACAACTGGTC

TyrGlyGluAlaLeuCysLysValLeuIleGlyPhePheTyrGlyAsnMetTyrCysSer
TACGGGGAGGCCCTGTGCAAGGTGCTCATTGGCTTTCTATGGAACATGTATTGCTCC 480

161 IleLeuPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsnProMetGly
ATCCTCTTCATGACCTGCCTCAGCGTGCAGAGGTACTGGGTGATCGTGAAACCCATGGGA

HisProArgLysLysAlaAsnIleAlaValGlyValSerLeuAlaIleTrpLeuLeuIle
CACCCAGGAAGGCAAACATGCCGTTGGCGTCTCCTGGCAATCTGGCTCTGATT 600

FIG. 1A

201 PheLeuValThrIleProLeuTyrValMetLysGlnThrIleTyrIleProAlaLeuAsn
TTCTGGTCACCATCCCTTGATGTATGCATGAAGCAGACCCTACATTCCAGCATTGAAC

IleThrThrCysHisAspValLeuProGluGluValLeuValGlyAsnMetPheAsnTyr
ATCACCACTGTCACGATGTGCTGCCAGAGGTATTGGTGGGGGACATGTTCAATTAC 720

241 PheLeuSerLeuAlaIleGlyValPheLeuPheProAlaLeuLeuThrAlaSerAlaTyr
TTCCTCTCACTGGCCATTGGAGTCTTCCCGGCCCTCTACTGCATCTGCCTAC

ValLeuMetIleLysThrLeuArgSerSerAlaMetAspGluHisSerGluLysLysArg
GTGCTCATGATCAAGACGCTCCGCTCTTGCTATGGATGAACACTCAGAGAACAAAAGG 840

281 GlnArgAlaIleArgLeuIleIleThrValLeuAlaMetTyrPheIleCysPheAlaPro
CAGAGGGCTATCCGACTCATCACCGTGCTGCCATGTACTTCACTGCTTCTGCCT

SerAsnLeuLeuLeuValValHisTyrPheLeuIleLysThrGlnArgGlnSerHisVal
AGCAACCTCTGCTCGTAGTGCATTATTCCTAATCAAACCCAGAGGCAGAGGCCACGTC 960

321 TyrAlaLeuTyrLeuValAlaLeuCysLeuSerThrLeuAsnSerCysIleAspProPhe
TACGCCCTCTACCTTGTCGCCCTCTGCCGTGCGACCTAACAGCTGCATAGACCCCTT

ValTyrTyrPheValSerLysAspPheArgAspHisAlaArgAsnAlaLeuLeuCysArg
GTCTATTACTTTGTCTCAAAGATTCAGGGATCACGCCAGAACGCGCTCCTTGCCGA 1080

361 SerValArgThrValAsnArgMetGlnIleSerLeuSerSerAsnLysPheSerArgLys
AGTGTCCGCACTGTGAATCGCATGCAAATCTCGCTCAGCTCCAACAAGTTCTCCAGGAAG
GATGTCAAGCCTGCTTGATGATGATGATGATGGTGTGTGTG 1246

SerGlySerTyrSerSerSerSerThrSerValLysThrSerTyr
TCCGGCTCCTACTCTTCAAGCTAACCAAGTGTAAACCTCCTACTGAGCTGTACCTGAG 1200

FIG. 1B

CGCTCCAGG CCTGGGTGACAGCGAGACCCTGTCTCATAAATTAAAAATGAATAA

SP

MetAsnValLeuSerPheGluGlnThrSerValThrAlaGluThrPheIleSerValMet
ATGAATGTACTTCAATTGAACAAACAGTGTTACTGCTGAAACATTATTCGTAATG

▼

ThrLeuValPheLeuSerCysThrGlyThrAsnArgSerSerLysGlyArgSerLeuIle
ACCCCTGTCTTCTTCTTGACAGGAACCAATAGATCCTCTAAAGGAAGAACAGCTTATT -1
120

GlyLysValAspGlyThrSerHisValThrGlyLysGlyValThrValGluThrValPhe
GGTAAGGTTGATGGCACATCCCACGTCACTGGAAAAGGAGTTACAGTTGAAACAGTCTT

SerValAspGluPheSerAlaSerValLeuThrGlyLysLeuThrThrValPheLeuPro
TCTGTGGATGAGTTTCTGCATCTGTCTCACTGGAAAAGTACCACTGTCTTCTTCCA 240

I
IleValTyrThrIleValPheValValGlyLeuProSerAsnGlyMetAlaLeuTrpVal
ATTGTCTACACAATTGTGTTGTGGTGGGTTTGCCAAGTAACGGCATGGCCCTGTGGGTC

PheLeuPheArgThrLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeu
TTTCTTTTCCGAACATAAGAAGCACCCTGCTGTGATTACATGGCCAATCTGGCCTTG 360

II
AlaAspLeuLeuSerValIleTrpPheProLeuLysIleAlaTyrHisIleHisGlyAsn
GCTGACCTCCTCTGTCACTGGTCCCCCTGAAGAGATTGCCTATCACATACATGGCAAC

AsnTrpIleTyrGlyGluAlaLeuCysAsnValLeuIleGlyPhePheTyrGlyAsnMet
AACTGGATTATGGGGAAAGCTTTGTAATGTGCTTATTGGCTTTCTATGGCAACATG 480

III
TyrCysSerIleLeuPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsn
TACTGTTCCATTCTTCATGACCTGCCTCAGTGTGCAGAGGTATTGGTCATCGTGAAC

ProMetGlyHisSerArgLysLysAlaAsnIleAlaIleGlyIleSerLeuAlaIleTrp
CCCATGGGGCACTCCAGGAAGAAGGCAAACATTGCCATTGGCATCTCCCTGGCAATATGG 600

FIG. 2A

IV
LeuLeuIleLeuLeuValThrIleProLeuTyrValValLysGlnThrIlePheIlePro
CTGCTGATTCTGCTGGTCACCATCCCTTGATGTCGTGAAGCAGACCATCTTCATTCC

AlaLeuAsnIleThrThrCysHisAspValLeuProGluGlnLeuLeuValGlyAspMet
GCCCTGAACATCACGACCTGTCAATGATGTTGCCTGAGCAGCTTGGTGGGAGACATG

720

PheAsnTyrPheLeuSerLeuAlaIleGlyValPheLeuPheProAlaPheLeuThrAla
TTCAATTACTTCCTCTCTGGCCATTGGGGCTTCTGTTCCCAGCCTTCACAGCC

SerAlaTyrValLeuMetIleArgMetLeuArgSerSerAlaMetAspGluAsnSerGlu
TCTGCCTATGTGCTGATGAGTCAGAATGCTGCGATCTCTGCCATGGATGAAAACTAGAG

840

LysLysArgLysArgAlaIleLysLeuIleValThrValLeuAlaMetTyrLeuIleCys
AAGAAAAGGAAGAGGCCATCAAACCTATTGTCAGTGTCCCTGGCCATGTACCTGATCTGC

PheThrProSerAsnLeuLeuLeuValValHisTyrPheLeuIleLysSerGlnGlyGln
TTCACTCCTAGTAACCTTCTGCTTGTGGTGCATTATTTCTGATTAAGAGCCAGGGCCAG

960

SerHisValTyrAlaLeuTyrIleValAlaLeuCysLeuSerThrLeuAsnSerCysIle
AGCCATGTCTATGCCCTGTACATTGTAGCCCTCTGCCCTACCCCTAACAGCTGCATC

AspProPheValTyrTyrPheValSerHisAspPheArgAspHisAlaLysAsnAlaLeu
GACCCCTTGCTATTACTTTGTTACATGATTCAGGGATCATGCAAAGAACGCTCTC 1080

LeuCysArgSerValArgThrValLysGlnMetGlnValSerLeuThrSerLysLysHis
CTTGCCGAAGTGTCCGCACTGTAAAGCAGATGCAAGTATCCCTCACCTCAAAGAACAC

SerArgLysSerSerSerTyrSerSerSerThrThrValLysThrSerTyr
TCCAGGAAATCCAGCTTTACTCTTCAAGTTCAACCACTGTTAAGACCTCCTATTGAGTT 1200

FIG. 2B

Mouse C140	M--FHLKHSS	LIVGPFISVM	IILRFLCTGR	NNSHKGRLSI	GRLETQPPIT	47
Human C140	MNVLSFEQTS	MTAETFISVM	IIVFLSCTGT	NRSSKGRLSI	GKVDGTSVH	50
Mouse C140	GKGVFVEPGF	SIDEFSASIL	TCKLTTVFLP	MVIIVFVIIG	LPSNGMALWI	97
Human C140	GKGVIVEIVF	SMDEFSSASML	TGKLTTVFLP	MVIIVFVIG	LPSNGMALWV	100
Mouse C140	FLFRKKKHP	AVIYMANLAL	ADLLSVIWFP	LKIISYHIIHGN	NWMYGEALCK	147
Human C140	FLFRKKKHP	AVIYMANLAL	ADLLSVIWFP	LKIAHYIIHGN	NWYGEALCN	150
Mouse C140	VLIGFFYGNM	YCSILFMTCL	SVQRYWVIVN	PMGHPRKKAN	IAMGMSLAIW	197
Human C140	VLIGFFYGNM	YCSILFMTCL	SVQRYWVIVN	PMGHSRKAN	IAIGISLAIW	200
Mouse C140	LLIFLVTIPL	YMKQTIIYIP	ALNITTCHDV	LPEEVLVGDM	FNYFLSLAIG	247
Human C140	LLILVVTIPL	YMKQTIPIP	ALNITTCHDV	LPEQLLVGDM	FNYFLSLAIG	250
Mouse C140	VFLFPALLTA	SAYVLMIKTL	RSSAMDEHSE	KKRQRAIRLI	ITVLAMYFIC	297
Human C140	VFLFPALFTA	SAYVLMIRML	RSSAMDENSE	KKRKRAIKLI	MTVLAMYLIC	300
Mouse C140	FIAPSNLVV	HYFLIKIQRQ	SHVYALYVA	LCLSTLNSCI	DPFVYYFVSK	347
Human C140	FIIPSNLLVV	HYFLIKSQGQ	SHVYALYIVA	LCLSTLNSCI	DPFVYYFVSH	350
Mouse C140	DFRDHARNAL	LCRSVRTVMNR	MQISLSSNKF	SRKSGSYSSS	STSVKTSY	395
Human C140	DFRDHAKNAL	LCRSVRTVKQ	MQMSLISKHH	SRKSSSYSSS	STTVKTSY	398

FIG.3

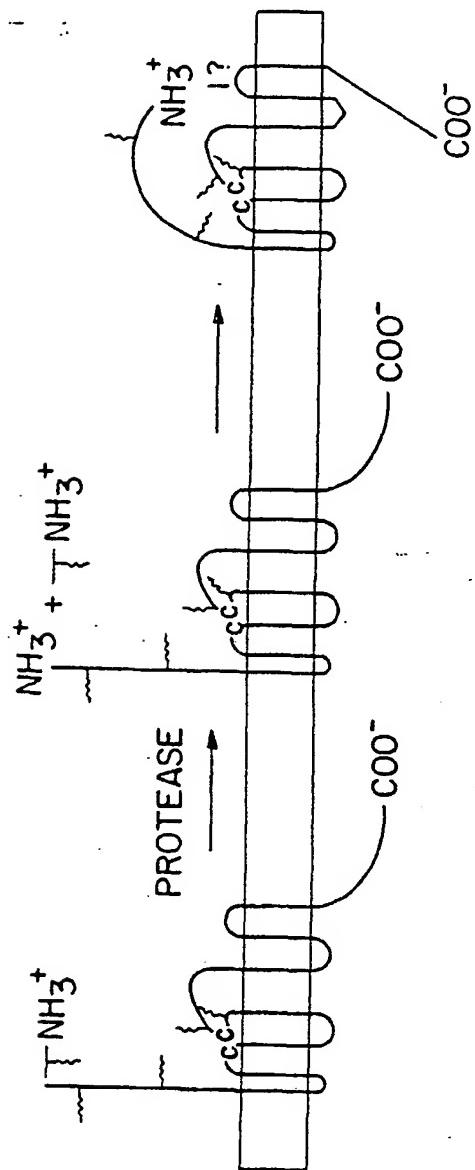


FIG. 4

C140 <i>HSTHRR</i>	SP <u>MFHLKHSSTVYGPFIISYMLLRFLLCTGRNNSK</u> ----- <u>GRSLIGRLIEIQP</u> ----- <u>MGPRRLLLVAAFCSSLCGPLSARTARRPESKATNATLDPRSFLLRNPDKYEPWEDEE</u> 60
	I
C140 <i>HSTHRR</i>	<u>KNESGLTEYRLVSINKSSPLQKQLPAF</u> ISEDASGYLTSSWLTFLFVPSVYGVFVVSPLN 120
	II
C140 <i>HSTHRR</i>	<u>GMALWIFLFRTRKKHHPAVIYMANALADLLSVIWFPLKISYHLHGNNNWYYGEALCKVLJG</u> 151 <u>IMAIUVFILKMKVKPKAVVYMLHLATADVLFVSVLPFKISYFFSGSDWQFGSELCRFVTA</u> 180
	III
C140 <i>HSTHRR</i>	<u>FFYGNMYCSILFMTCISVQRYWWIVNPM-GHPRKKKANIAVGVS</u> SLAIWLLIFLVTIPLVYV 210 <u>AFYCNMYASILLMTVISIDRFLAVVYPPMQSLSWRTLGRASFCLAIWALATAGVVPLVLK</u> 240
	IV
C140 <i>HSTHRR</i>	<u>KQTLYIPALNITTCHDVLPPEEVLYGDMFNYFLSLAIGVFLPALLTASAYVLMIKTLRSS</u> 270 <u>EQT1QVPGLNITTCHDVLNETLLEGYYAYYFSAFSAVFFFVPLITSTCVYVSIJRCLSSS</u> 300
	V
C140 <i>HSTHRR</i>	<u>AMDEHSEKKRQRAIRLIITVULAMYFICFAPSNLLLVWVHY-FLIKTORQSHVYALYLVALC</u> 329 <u>AVANRSKKSR--ALFLSAAVFCIFIICFGPTNVVLLIAHYSFLSHTSSTEAYFAYLLCVC</u> 358
	VI
C140 <i>HSTHRR</i>	<u>LSTLNSSCIDPFVYYFVSKDFRDHARNALLCRSVRTVNRMQISLSMNKFSSRKGSYSSSSST</u> 389 <u>VSSISSCIDPLIYYYASSECQRVYVSSSYNNSGQLMASKMDTCSSNLNNNS</u> 418
	VII
C140 <i>HSTHRR</i>	<u>SVKTSY-</u> <u>IYKKLLT</u>

F I G. 5

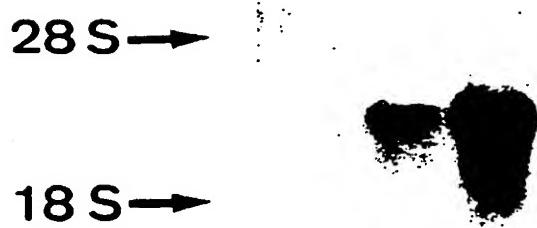


FIG. 6

BLOOD PRESSURE

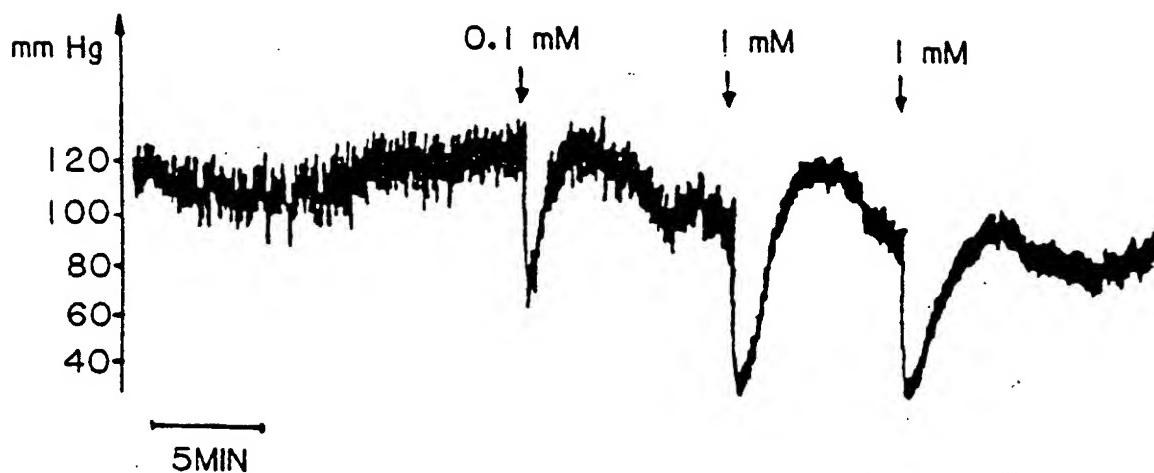


FIG. 7

Applicants: Johan Sundelin, et al.
Title: RECOMBINANT C140 RECEPTOR, ITS AGONISTS AND
ANTAGONISTS, AND NUCLEIC ACIDS ENCODING THE RECEPTOR
Attorney/Agent: Jean M. Silveri
Docket No.: MPI93-006CP1DV1ACN1DV1M
Sheet 9 of 16

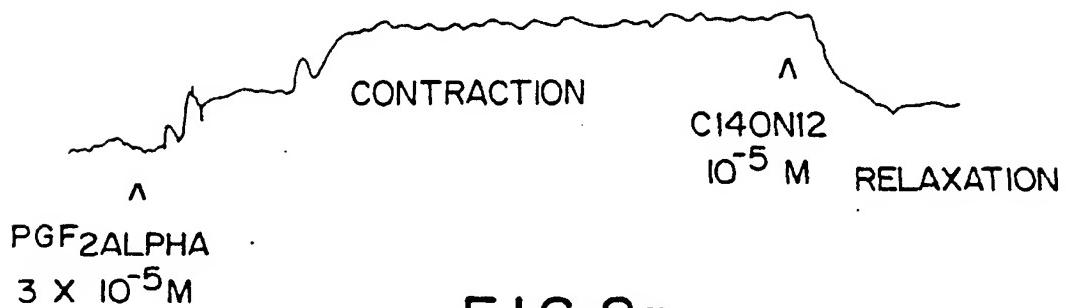


FIG. 8a

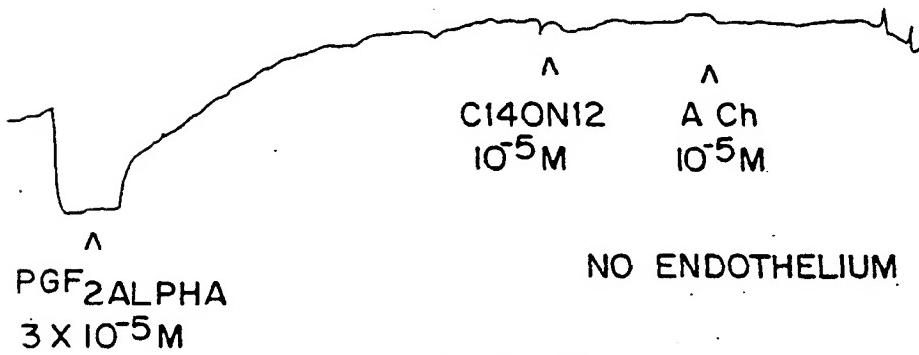


FIG. 8b

Applicants: Johan Sundelin, et al.

Title: RECOMBINANT C140 RECEPTOR, ITS AGONISTS AND
ANTAGONISTS, AND NUCLEIC ACIDS ENCODING THE RECEPTOR

Attorney/Agent: Jean M. Silveri

Docket No.: MPI93-006CP1DV1ACN1DV1M

Sheet 10 of 16

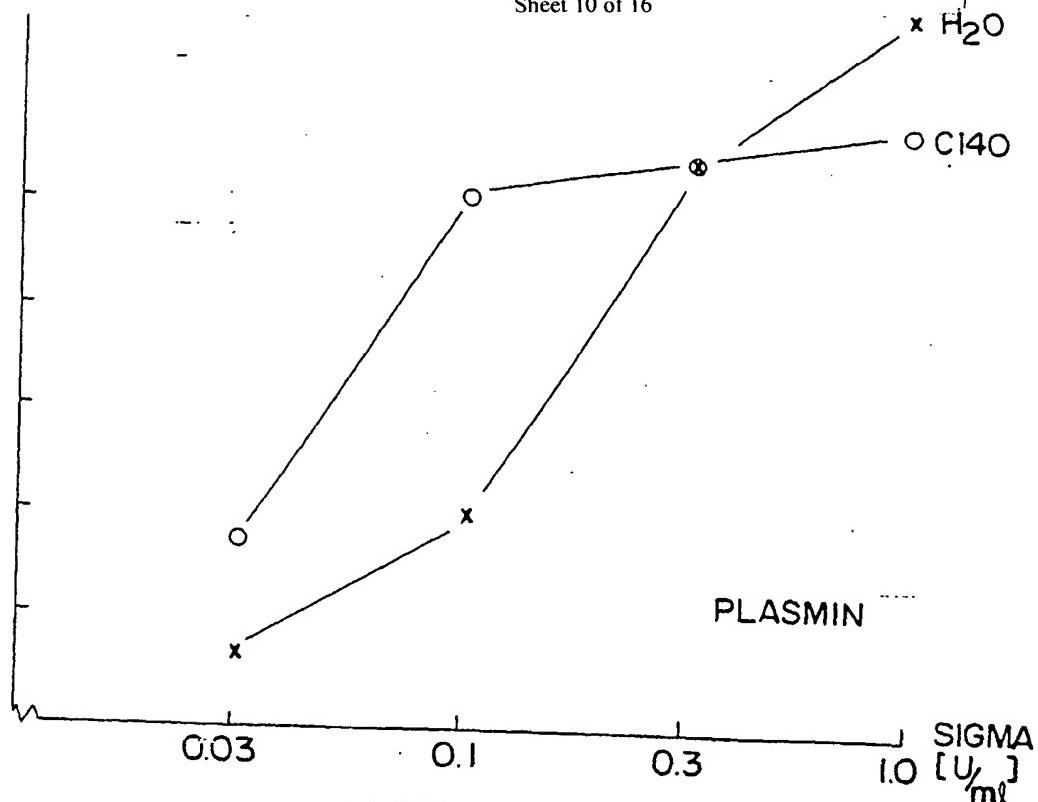


FIG. 9a

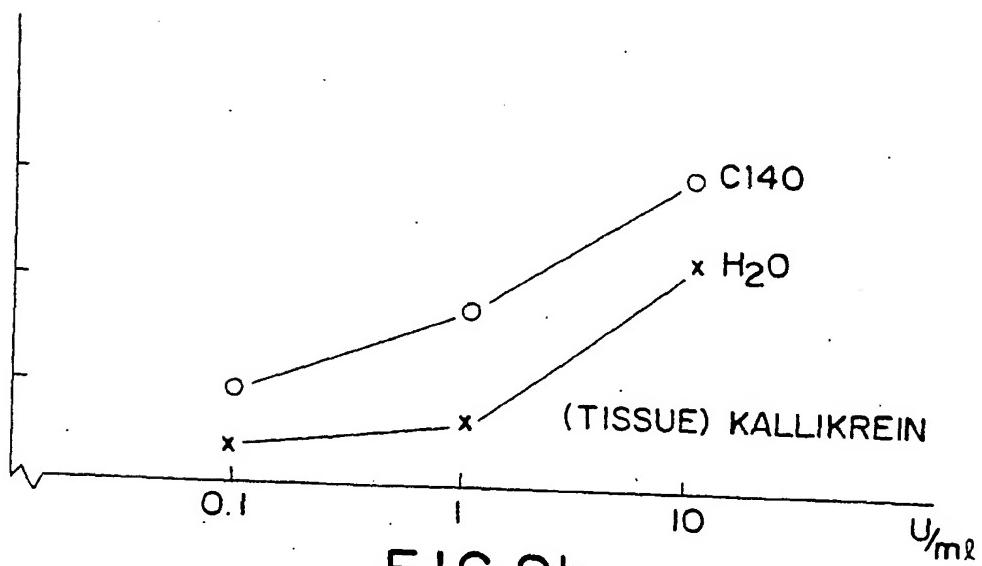


FIG. 9b

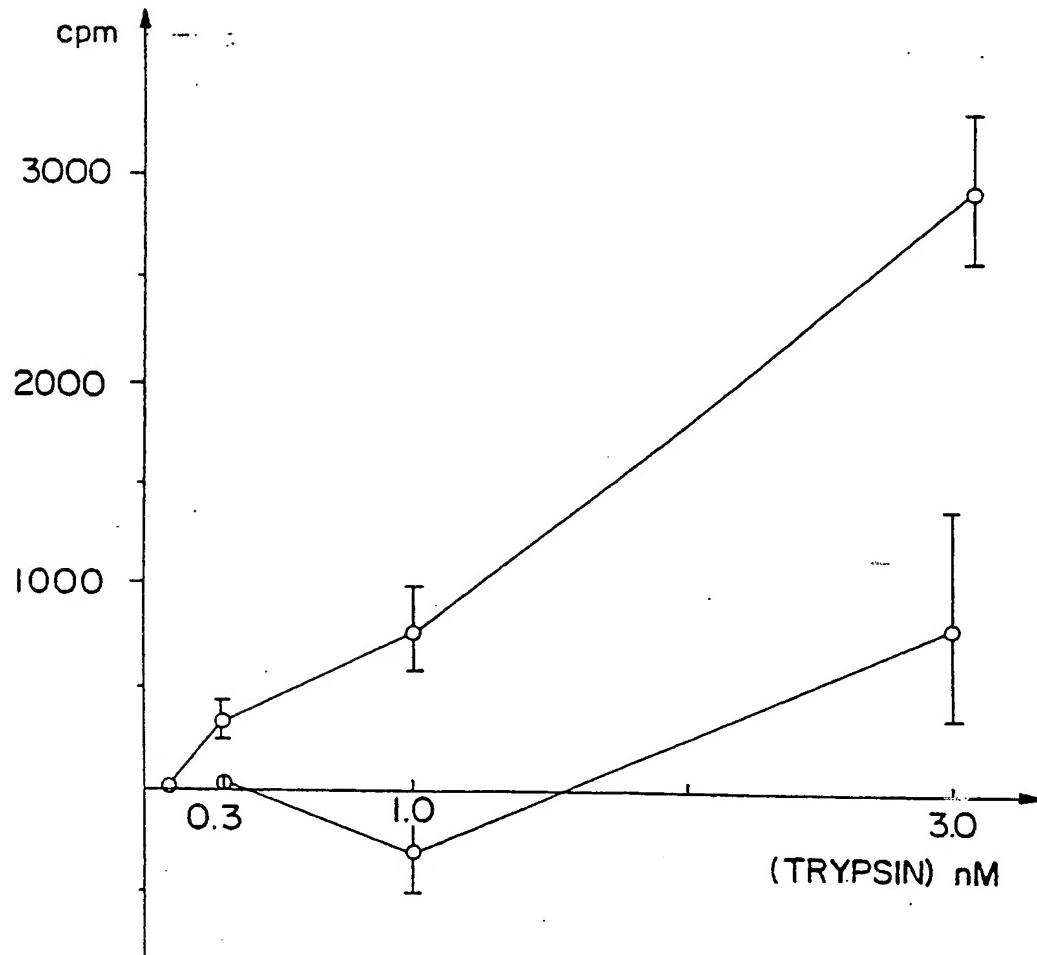


FIG.9c

CCCTGTGCTCAGAGTAGGGCTCCGAGTTCGAACCACTGGTGGCGGATTGCCCGCCCCGCC
CCACGTCCGGGGATGCGAAGTCTCAGCCTGGCGTGGCTGGGAGGTATCACCCCTCTG
M R S L S L A W L L G G I T L L
GCGGCCTCGGTCTCTGCAGCCGGACCGAGAACCTTGACCCGGACGCAACAACAGTAAA
A A S V S C S R T E N L A P G R N N S K
GGAAGAAGTCTTATTGGCAGATTAGAAACCCAGCCTCCAATCACTGGGAAAGGGGTTCCG
G R S L I G R L E T Q P P I T G K G V P
GTAGAACCAAGGCTTTCCATCGATGAGTTCTCGCGTCCATCCTCACCGGGAAAGCTGACC
V E P G F S I D E F S A S I L T G K L T
ACGGTCTTCTTCGGTCGTCTACATTATTGTGTTGTGATTGGTTGCCAGTAATGGC
T V F L P V V Y I I V F V I G L P S N G
ATGGCCCTCTGGATCTTCCTTCCGAACGAAGAAGAAACACCCCGCCGTGATTTACATG
M A L W I F L F R T K K K H P A V I Y M
GCCAACCTGGCTTGGCGACCTCCTCTGTCTCATCTGGTTCCCCCTGAAGATCTCCTAC
A N L A L A D L L S V I W F P L K I S . Y
CACCTACATGGCAACAACTGGGTCTACGGGAGGGCCCTGTCAAGGTGCTCATTGGCTTT
H L H G N N - W V Y G E A L C K V L I G F
TTCTATGGTAACATGTATTGCTCCATCCTCTTCATGACCTGCCTCAGCGTGAGAGGTAC
F Y G N M Y C S I L F M T C L S V Q R Y
TGGGTGATCGTAACCCATGGGACACCCAGGAAGAAGGCAAACATGCCGTTGGCGTC
W V I V N P M G H P R K K A N I A V G V
TCCTGGCAATCTGGCTCCTGATTTCTGGTCAACCATCCCTTGATGTCTGAAGCAG
S L A I W L L I F L V T P I L Y V M K Q
ACCATCTACATTCCAGCATTGAACATCACCAACCTGTCAAGATGTGCTGCCTGAGGAGGTAC
T I Y I P A L N I T T C H D V L P E E V
TTGGTGGGGGACATGTTCAATTACTTCCTCTCAGTGGCCATTGGAGTCTTCTGTTCCG
L V G D M F N Y F L S L A I G V F L F P
GCCCTCCTACTGCATCTGCCTACGTGCTCATGATCAAGACGCTCCGCTCTGCTATG
A L L T A S A Y V L M I K T L R S S A M
GATGAACACTCAGAGAAGAAAAGGCAGAGGGCTATCCGACTCATCATCACCGTGCTGGCC
D E H S E K K R Q R A I R L I I T V L A
ATGTAATTCTGCTTGCCTAGCAACCTCTGCTCGTAGTCATTATTCCTAATC
M Y F I C F A P S N L L L V V H Y F L I
AAAACCCAGAGGCAGAGCCACGTCTACGCCCTCTACCTTGTGCGCCCTCTGCCTGTCGACC
K T Q R Q S H V Y A L Y L V A L C L S T
CTCAACAGCTGCATAGACCCCTTGCTATTACTTGTCTAAAAGATTCAGGGATCAC
L N S C I D P F V Y Y F V S K D F R D H

FIG. 10A

GCCAGAAACGCGCTCCTCTGCCGAAGTGTCCGCACTGTGAATGCATGCAAATCTCGCTC
A R N A L L C R S V R T V N R M Q I S L
AGCTCCAACAAGTTCTCCAGGAAGTCCGGCTCCTACTCTCAAGCTAACCGAGTGTAAA
S S N K F S R K S G S Y S S S S T S V K
ACCTCCTACTGAGCTGTACCTGAGGATGTCAAGCCTGCTTGATGATGATGATGATGG
T S Y
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGCACCCGTGTGAGTGCCTG
GTAGGGATAACCAACATGGATGGGGCTGTCAATTCTATCCAAGCTGTCTGTCTGCA
CCAATCACAGCATGCAGCTCTCCCCAGGATTGACAGAACGCCTCTCCTTGATGAGAA
CAGTCTTCACTCTGATGAAAAGCATCAGTATCAGAAACTGAAACGAACGTGAGAGGAGCT
TGTTTGTGAAAGTGAAGAGAAGATGGAGGGTCAGTGACTTGCAAAAAAAACCAACCAA
CAAAAACACCTGGCAAGAAGGCTAACAGACTCTCTGAAATGCTCCCTTCCATCTGG
AGTTCGTCTCGGCCTTGTTCAGGACCTGAGGCCCTGGTAGAGCTTCAGTCAGTTGATTG
ACTTTACAGACTTGAGAGAGGAGTGAATGAGGAGTGAATGAGGCTCTGGCGGCATCCTA
ACCGGCTAACAGTGGCCTTGTGGACAATAGGATTCAAGATGGCTGGAGTTACATTCTCAC
ACCATTTCATCAGAACTATTGGGGATCTTGATCAATGTGCAGGTCCCTAGCGTCAGTAA
CCCTGGGAGCTCAGACACGATGGGGTGAGGGTGGGGGTGGGGGTGGGGGTGAGGCTCTA
CAAACCTTAGTGAATGACTGCAGACACAGAACCATGGAGCTGAGCCTGCTTGCTGCCA
GGGCACCACTGTAATGTTGCAAAGAAAAACCAACAGCAGTGTGAGGCTCTGGGGTCTTT
GGTCAGTTATGATGAATTGCCTATTGGTTATTGGGATTTCAAGTCCTTATTACTT
TGTTGTAATTGTGTGTTATTAGTCAAGAAAAAGAAGATGAGGCTCTTAAAAATGAA
ATAAAATTTGGTTTTGGTTTTAACTGGCCAACACTAAACTGCTTAGGTT
TTTCTAACTTAATTGTTAACTACATCATGTGAACCTAACAGACATTTCATGATAAACGAT
TACTGTAGTGTCACTTCCCTCATCCTCGATCATAGTCCTCCGTGAAGCAGGCCCT
TCCCCCTCCCCCCCCCTTGCCGTTCCCTCCCCACCAAGATAGTCCTCTGCTGCTTAAC
CTACCAGTTAGTATTTATAAAACAGATCATTGGAATATTATTATCAGTTGTTCAC
TTGTTATCAGTTGTTCACTAATTGTCCAATAATGGAATTAAACGTCTCTCATCTGTT
TGAGGAAGATCTGAAACAAGGGGCCATTGCAGGAGTACATGGCTCCAGGCTTACTTTATA
TACTGCCTGTATTGTGGCTTAAAAAAATGACCTGTTATATGAATGCTTATAAATAA
ATAATGCATGAACCTTAAAAAAAAAAAAAA

F I G. IOB

10	20	30	40	50	60
123456789012345678901234567890123456789012345678901234567890					
CAAAGAATTGTAATACGACTCACTATAGGGCGAATTGGATCCAGGAGGAATCGGAGCCC MetArgSerPr					
<hr/>					
70	80	90	100	110	120
123456789012345678901234567890123456789012345678901234567890					
CAGCGCGGCGTGGCTGGCTGGGGGCCATCCTGCTAGCAGCCTCTCTCCTGCAGTGG oSerAlaAlaTrpLeuLeuGlyAlaAlaIleLeuLeuAlaAlaSerLeuSerCysSerG1					
<hr/>					
CACCATCCAAGGAACCAATAGATCCTCTAAAGGAAGAACGCTTATTGGTAAGGTTGATGG yThrIleGlnGlyThrAsnArgSerSerLysGlyArgSerLeuIleGlyLysValAspG1					
<hr/>					
CACATCCCACGTCACTGGAAAAGGAGTTACAGTTGAAACAGTCTTCTGTGGATGAGTT yThrSerHisValThrGlyLysGlyValThrValGluThrValPheSerValAspGluPh					
<hr/>					
TTCTGCATCTGTCCTCGCTGGAAAAGTACCGCACTGTCTTCCCTCAATTGTCTACACAAT eSerAlaSerValLeuAlaGlyLysLeuThrThrValPheLeuProIleValTyrThrI1					
<hr/>					
TGTGTTGCGGTGGGTTGCCAACGTAACGGCATGGCCCTATGGGTCTTCTTCCGAAC eValPheAlaValGlyLeuProSerAsnGlyMetAlaLeuTrpValPheLeuPheArgTh					
<hr/>					
TAAGAAGAAGCACCTGCTGTGATTACATGGCCAATCTGGCCTTGGCTGACCTCCTCTC rLysLysLysHisProAlaValIleTyrMetAlaAsnLeuAlaLeuAlaAspLeuLeuSe					
<hr/>					
TGTCACTGGTCCCCCTTGAAGATTGCCTATCACATACATGGCAACAACTGGATTATGG rValIleTrpPheProLeuLysIleAlaTyrHisIleHisGlyAsnAsnTrpIleTyrG1					
<hr/>					
GGAAGCTCTTGTAAATGTGCTATTGGCTTTCTATCGCAACATGTA yGluAlaLeuCysAsnValLeuIleGlyPhePheTyrGlyAsnMetTyrCysSerIleLu					
<hr/>					
CTTCATGACCTGCCTCAGTGTGAGAGGTATTGGGTATCGTA uPheMetThrCysLeuSerValGlnArgTyrTrpValIleValAsnProMetGlyHisSe					
<hr/>					
CAGGAAGAAGGCAAACATTGCCATTGGCATCTCCCTGGCAATATGGCTGCTGACTCTGCT rArgLysAlaAsnIleAlaIleGlyIleSerLeuAlaIleTrpLeuLeuThrLeuLe					
<hr/>					
GGTCACCATCCCTTGATGTCGTGAAGCAGACCATCTCATTCCCTGCCCTAACATCAC uValThrIleProLeuTyrValValLysGlnThrIlePheIleProAlaLeuAsnIleTh					
<hr/>					

FIG.IIA

GACCTGTCATGATGTTTGCCTGAGCAGCTTGGTGGAGACATGTTCAATTACTTCCT	
rThrCysHisAspValLeuProGluGlnLeuLeuValGlyAspMetPheAsnTyrPheLe	
CTCTCTGGCCATTGGGGTCTTCTGTTCCCAGCCTCCTCACAGCCTCTGCCATGTGCT	840
uSerLeuAlaIleGlyValPheLeuPheProAlaPheLeuThrAlaSerAlaTyrValLe	
GATGATCAGAATGCTCGATCTCTGCCATGGATGAAAACCTAGAGAAGAAAAGGAAGAG	
uMetIleArgMetLeuArgSerSerAlaMetAspGluAsnSerGluLysLysArgLysAr	
GGCCATCAAACTCATTGTCACTGTCCTGGGCATGTACCTGATCTGCTTACTCCTAGTAA	960
gAlaIleLysLeuIleValThrValLeuGlyMetTyrLeuIleCysPheThrProSerAs	
CCTTCTGCTTGTGGTCATTATTTCTGATTAAGAGGCCAGGGCCAGAGCCATGTCTATGC	
nLeuLeuLeuValValHisTyrPheLeuIleLysSerGlnGlyGlnSerHisValTyrAl	
CCTGTACATTGTAGCCCTGCCTCTCACCCCTAACAGCTGCATGACCCCTTGTCTA	1080
aLeuTyrIleValAlaLeuCysLeuSerThrLeuAsnSerCysIleAspProPheValTy	
TTACTTTGTTCACATGATTCAGGGATCATGCAAAGAACGCTCTCCTTGCCGAAGTGT	
rTyrPheValSerHisAspPheArgAspHisAlaLysAsnAlaLeuLeuCysArgSerVa	
CCGCACTGAAAGCAGATGCAAGTACCCCTCACCTCAAAGAACACTCCAGGAAATCCAG	1200
IArgThrValLysGlnMetGlnValProLeuThrSerLysLysHisSerArgLysSerSe	
CTCTTACTCTCAAGTTAACCACTGTTAACGACCTCTATTGAGTTTCCAGGTCTCAG	
rSerTyrSerSerSerThrThrValLysThrSerTyr	
ATGGGAATTGCACAGTAGGATGTGGAACCTGTTAATGTTATGAGGACGTGTCTGTTATT	1320
TCCGGATCCAGATCTTATTAAAGCAGAACCTGTTATTGCAGCTATAATGGTTACAAAT	
AAAGCAATAGCATCACAAATTCAACAAATAAAGC	1414

FIG.IIB



FIG.12

1 2 3 4 5 6 7 8 9 10 11 12 13 14

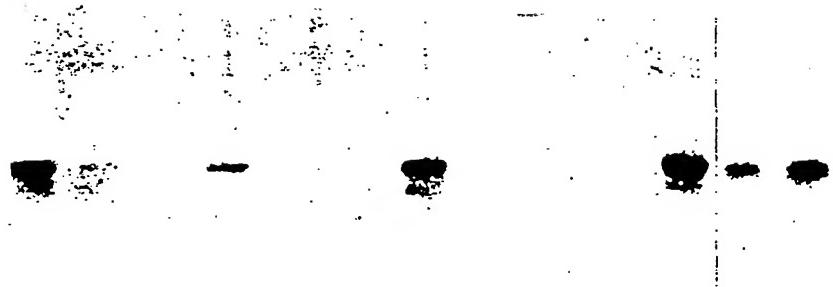


FIG.13